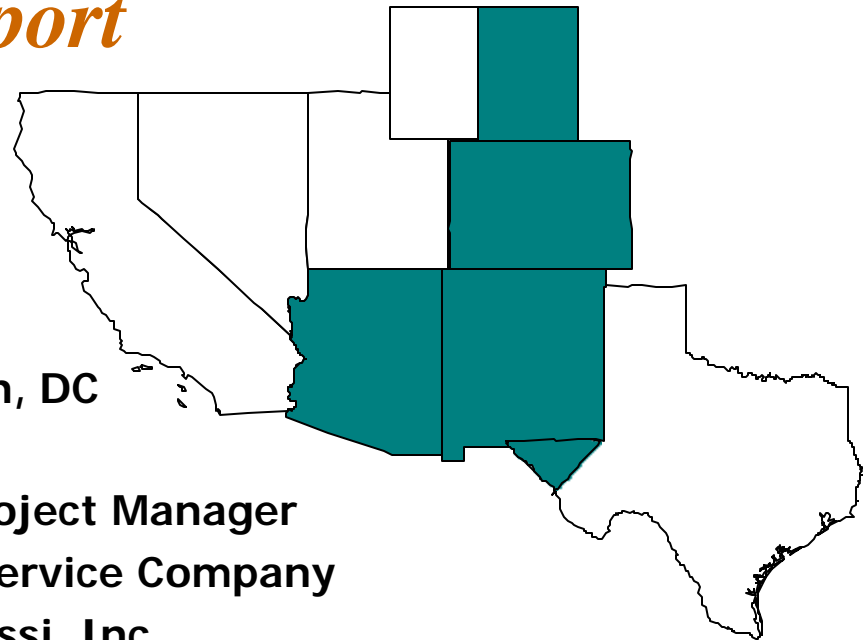
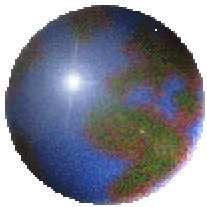
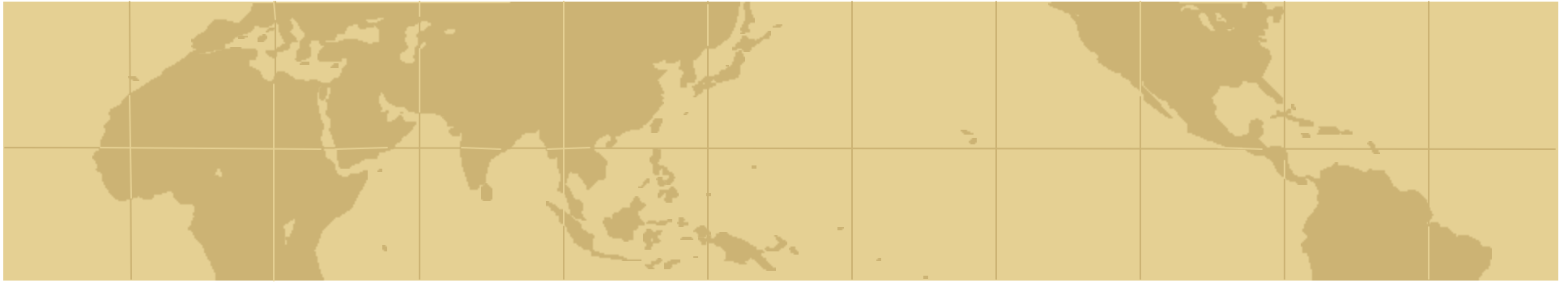


## ***Desert STAR RTO Filing Report***

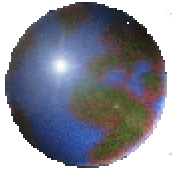
**EEI Conference  
The RTO Filings  
November 2-3, 2000  
Mayflower Hotel, Washington, DC**

**Mike Raezer, Desert STAR Project Manager  
Jerry Smith, Arizona Public Service Company  
Bill Dunn, Barker, Dunn & Rossi, Inc.**



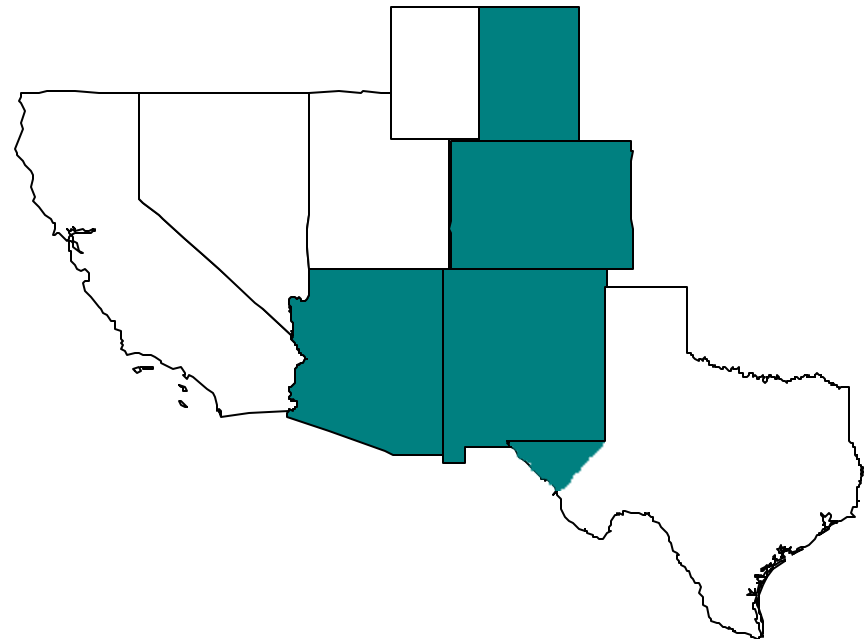


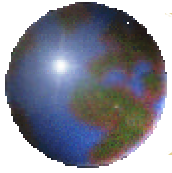
## *Desert STAR (DSTAR) Overview*



## *DSTAR Scope and Size*

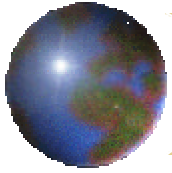
- 25,000 MW/6 million customers across 5 states
- Covers nearly all the region's transmission
- Jurisdictional and non-jurisdictional entities are planning to be part of Desert STAR
- Existing Contract rights will be honored





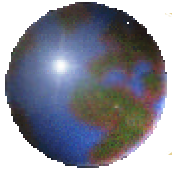
## *A Little History*

- Discussions on the formation of DSTAR started in early 1997
- In October 1999, a set of By-Laws were approved that established an independent Board of Directors
- The Board was elected by the Advisory Committee and took office in May 2000
- Outside technical and legal help were hired in April 2000



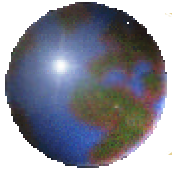
## *Governance*

- DSTAR is a non-profit corporation
- DSTAR is governed by five voting independent Directors
- Board of Directors are independent of Transmission Owners and other Market Participants
- The Board may receive recommendations from the Advisory Committee prior to taking any action
- The “Board” includes an *ex officio* representative for each Member Class and for federal power marketing administrations



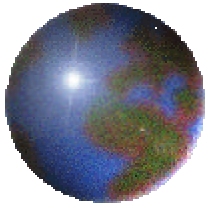
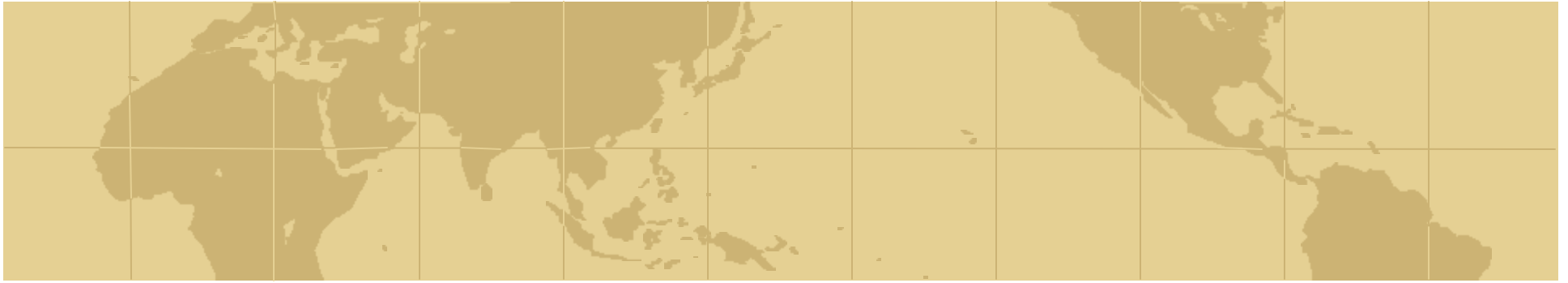
## *Advisory Committee*

- The Advisory Committee consists of two representatives per Class elected by each Class
- 8 Member Classes:
  - Transmission Owners
  - Load Serving Entities
  - Generating Entities
  - Transmission-Dependent Utilities
  - Power Marketers
  - Large Retail Customers
  - Small Retail Customers
  - Utilities Commissions *ex officio*



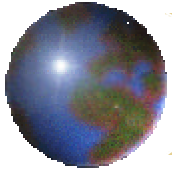
## *More Recent Events*

- Numerous stakeholder meetings all summer
- Meetings are open to all actual, potential and interested participants
- A wide variety of stakeholder types: investor-owned, municipal, cooperative, State entity, Federal entity, irrigation district, sovereign nation, regulator, marketer, generator, aggregator
- The DSTAR October 16, 2000 filing was a comprehensive status report, with links to hundreds of pages of detailed draft documents
- A full RTO filing is scheduled for December 29, 2000

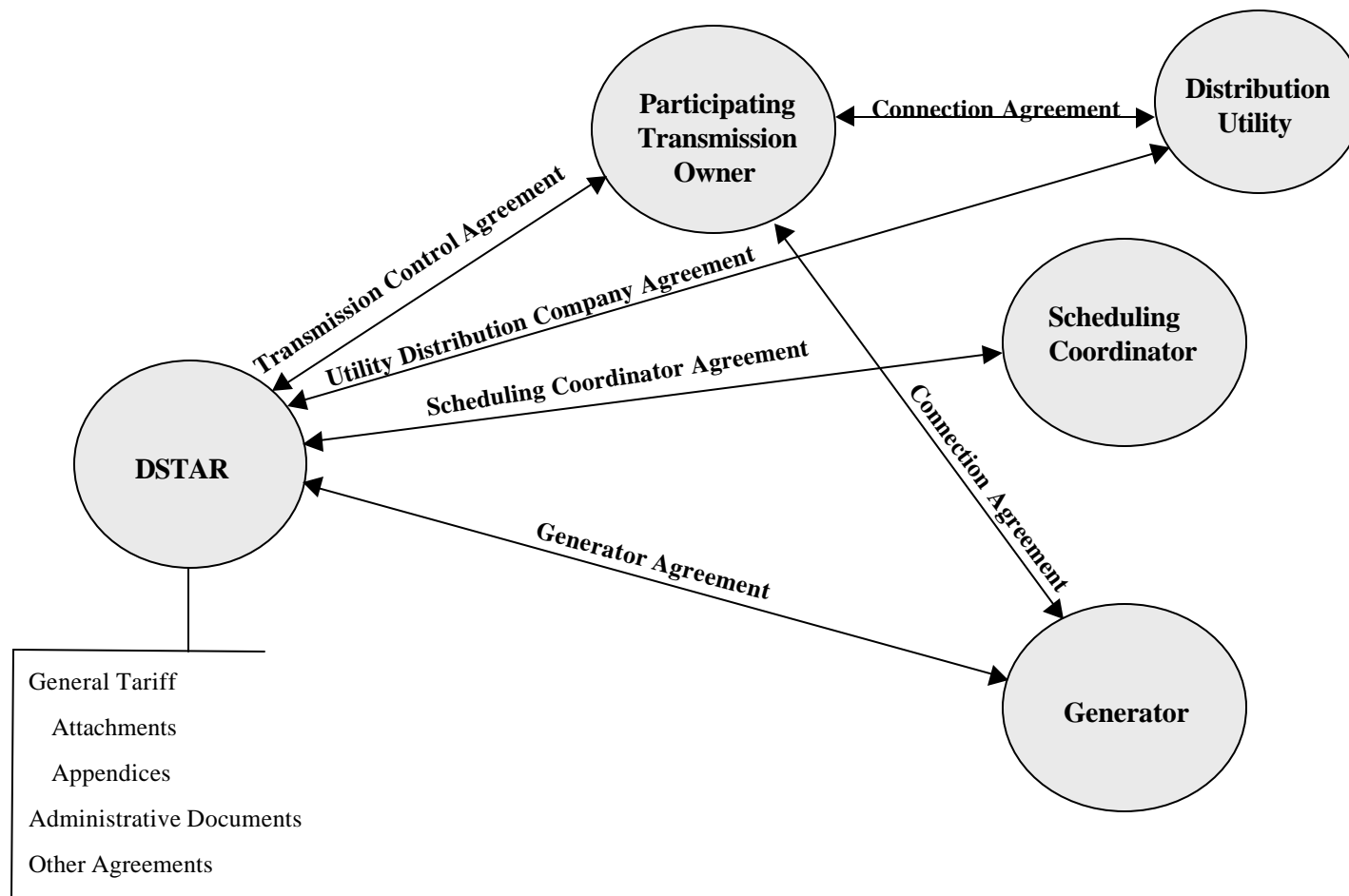


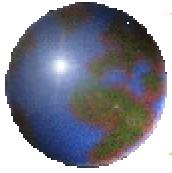
## *The DSTAR Design*





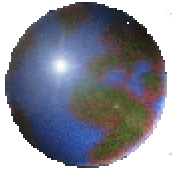
## *DSTAR Document Framework*





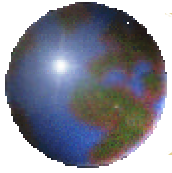
## *Market Design Features Summary*

- One Hierarchical Control Area with existing control centers utilized for dispatch implementation
- Self-commitment/bi-lateral physical schedule model
- Transmission Rights to manage inter-zonal congestion
- Intra-zonal congestion managed through Congestion Redispatch bids
- Zonal Balancing Energy Prices result from the dispatch of resources in the DSTAR-wide Balancing Energy Stack
- Transmission access via a DSTAR-Wide Average Rate, with a revenue equalization mechanism to mitigate cost shifting



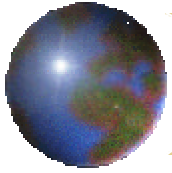
## *Scheduling Process*

- Each Scheduling Coordinator is required to submit a Balanced Schedule in the Day-Ahead Scheduling Process
- Schedules over congested interfaces (FTR Interfaces) or to non-DSTAR portions of the grid (Scheduling Points) require Transmission Rights
- Schedule changes are allowed in the Schedule Adjustment Process provided the Schedule remains balanced and does not create Intra-Zonal Congestion



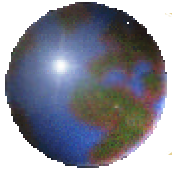
## *Transmission Rights*

- Inter-Zonal Congestion is managed through the use of Transmission Rights
  - Firm Transmission Rights (“FTRs”)
  - Recallable Transmission Rights (“RTRs”)
  - Non-Firm Transmission Rights (“NTRs”)
  - Non-Converted Rights (“NCRs”)
- FTRs are auctioned annually, monthly and daily
- Physical instruments
- Provide users the right to schedule on specific interfaces
- No additional costs for inter-zonal Congestion except during curtailments



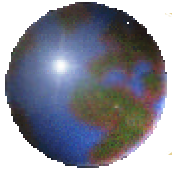
## *Allocation of Transmission Rights*

- Anti-Hoarding Provisions
  - Annual, Monthly and Daily Release
  - Non-Scheduled FTRs Released as RTRs
  - NTRs Released for counterflows, etc.
- Entities with a Historical Use and/or converted Existing Contract (EC) designation are allocated FTR auction revenues (see issues)
- FTR auctions allow for a maximum bid price to assure a bidder that their bid will be accepted
- Historical Users/ECs are granted the tie-breaker when the demand for FTRs at the maximum bid price exceed the available quantity



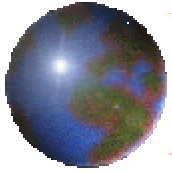
## *The Ancillary Services*

- Regulation and Frequency Response service
- Load Following Up service
- Load Following Down service
- Spinning Reserve service
- Non-spinning Reserve service
- Balancing Energy service
- Supplemental Energy service
- Voltage Support service
- Scheduling and Dispatch service
- Black Start service
- Congestion Redispatch service
- Local Generation Resource ("LGR") service.



## *Treatment of Ancillary Services*

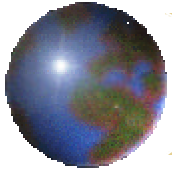
- Focus on Self-Provision by Scheduling Coordinators (SCs)
  - DSTAR Posts SC Requirements in advance
  - SCs determine amounts (if any) they wish to self-provide
  - DSTAR is Provider of Last Resort
- Load Following Service
  - Allows Efficient Use of Regulation Service
- Supplemental Energy Service
  - For Balancing the System in Real Time – Used in Conjunction with the Energy from Load Following Service
- Reserves Used Only for Contingencies
- Local Generation Resource services for load pockets (see issues)



## *Transmission Pricing*

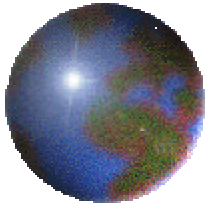
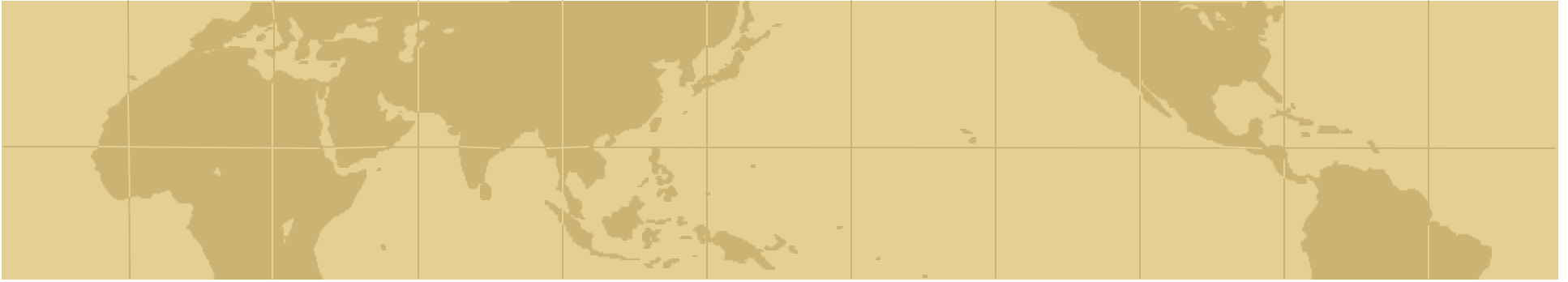
- Stakeholders meeting last week agreed to the following concept, details to be determined
  - A single DSTAR-Wide Average Rate
  - All Participating Transmission Owners (TOs) recover their Annual Transmission Revenue Requirements (ATRRs)
  - Multi-party agreement among TOs and SCs for revenue allocation/equalization among SCs to mitigate cost shifting on Day 1 and for some time period
- Some of the details to be developed include:
  - Treatment of new and departing Participating TOs, Wheeling Through/Out revenues, and new transmission investment
  - Mechanics of rate determination and phase-out of multi-party agreement
  - The definition of “transmission”



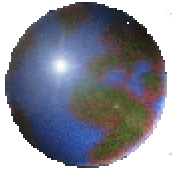


## *Generator Interconnection*

- Jurisdictional Utilities drafted an Appendix addressing Generator Interconnection and Operations
- DSTAR Stakeholders are reviewing this proposal and Transmission Planning for the December 29, 2000 filing
- DSTAR will develop interconnection standards

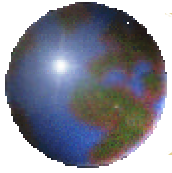


## *Unresolved Issues and Work in Progress*



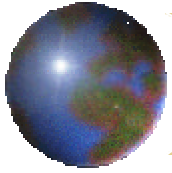
## *Rollover Rights for Existing Contracts*

- Issue is what happens when an Existing Contract (EC) expires, since ECs that convert to DSTAR service are entitled to a share of the FTR auction revenues
- Current drafts indicate that the rights continue for the longer of the stated term of the EC or ten years
- The Jurisdictional Utilities are proposing that ECs expire according to their terms and any rights of first refusal under Order 888 do not include rights to use FTR Interfaces without paying for the FTRs
- The Arizona Consumer-Owned Electric Systems (ACES) want Order 888 rights to include ongoing rights of first refusal to purchase FTRs at the auction clearing price



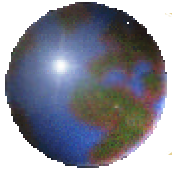
## *FTR Auction Revenue Distribution*

- Issue has to do with who gets the revenues from the FTR auctions
- Current drafts allocate FTR auction revenues to Historical Users and converted ECs for the ten years (or longer for ECs with specific longer terms)
- The Jurisdictional Utilities propose allocation on a Current Use concept, updated every year
- The Southwest Power Trading Forum opposes both the Historical Use and Current Use concepts



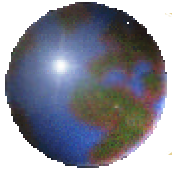
## *Local Generation Resources (LGRs)*

- Issue has to do with treatment of generation that may have local market power under certain conditions
- Current drafts allow DSTAR to place a requirement on certain Generation to participate in an Energy auction under projected Load Pocket conditions
- Pricing is a function of the prices in the auction, prices in adjacent zones and demonstrable costs
- The Southwest Power Trading Forum opposes application of this mechanism to new Generation and has concerns with the pricing
- The Jurisdictional Utilities propose costs include all fixed costs for resources which owner wants to retire or mothball, with DSTAR keeping market revenues until its costs are recovered



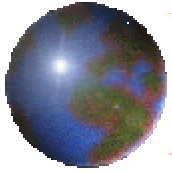
## *Contracts Between Participating TOs*

- Issue has to do with what happens to ECs between Participating TOs when they sign the Transmission Control Agreement and turn Operational Authority over their Transmission Facilities over to DSTAR
- Current drafts indicate that these contracts will be terminated, which is the position of the Southwest Power Trading Forum
- Most stakeholders, including the Participating TOs, believe these ECs should be given the same rights to convert or not as ECs between Participating TOs and others



## *Some Additional Issues*

- Should there be forced cancellation and/or non-extension of Existing Contracts?
- How should differences between the requirements of ECs (e.g., loss %) and DSTAR be treated
- Resolution of details in the Transmission Control Agreement, including:
  - Individual vs. multi-party contract
  - Scope of DSTAR authority
  - Inalienable rights of Participating TOs
  - Residual obligations placed on withdrawing Participating TOs



## *Proposed Implementation Schedule*

- 12/29/00 DSTAR RTO approval filing with FERC
- 1/15/01 CEO hired & RFP(s) issued
- 2/16/01 Responses to RFP(s) received
- 3/14/01 FERC approval received
- 3/23/01 Long-term financing & contract award
- 4/1/01 Management positions filled, staffing begins
- 7/15/01 Systems available for testing
- 9/15/01 Systems available for operator & user training
- 12/15/01 Initial DSTAR operations